AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A power supply circuit that generates a plurality of drive voltages having intermediate voltage levels with respect to a peak voltage level, the intermediate voltage levels being grouped into a first group of voltage levels comprising intermediate voltage levels that are low level with respect to the peak voltage level and a second group of voltage levels comprising intermediate voltage levels that are high level with respect to the peak voltage level, said power supply circuit comprising:

an amplifier having a voltage follower configuration;

at least one capacitor connected to the amplifier, said at least one capacitor and said amplifier generating a first voltage level included in the first group of voltage levels; and

a switch circuit controlled at a predetermined timing to switch said at least one capacitor to generate a second voltage level included in the second group of voltage levels with a discharge voltage of said at least one capacitor and the peak voltage level.

2. (previously presented): A power supply circuit for driving liquid crystal display as claimed in Claim 1, wherein all voltage levels are generated with n number or less amplifiers and n number or less capacitors when the number of the voltage levels is equal to 2n for the intermediate voltage levels, wherein n is an integer.

3. (previously presented): A power supply circuit for driving liquid crystal display as claimed in Claim 1, wherein all voltage levels are generated with n number or less amplifiers and 3n number or less capacitors when the number of the voltage levels is equal to 4n for the intermediate voltage levels, wherein n is an integer.

4. (previously presented): A power supply circuit that generates four intermediate voltage levels with respect to a peak voltage level, said power supply circuit comprising two amplifiers each having a voltage follower configuration, two series-connected capacitors, and a switching means, wherein a first group of voltage levels comprises two intermediate voltage levels that are low level with respect to the peak voltage level and a second group of voltage levels comprises the remaining two intermediate voltage levels, wherein:

said amplifiers and said series-connected capacitors generate the two voltage levels of the first group of voltage levels, and

said switching means, controlled at a predetermined timing, switch said series-connected capacitors to generate the two voltage levels of the second group of voltage levels using a discharge voltage from each of said capacitors and the peak voltage level.

5. (previously presented): A power supply circuit as claimed in Claim 4, wherein said two capacitors are connected with each other via a junction, wherein one intermediate voltage level of the first group of voltage levels and one intermediate voltage level of the second group of voltage levels are successively generated at the junction.

6. (previously presented): A power supply circuit that generates four intermediate voltage levels with respect to a peak voltage level, said power supply circuit comprising one amplifier having a voltage follower configuration, at least three capacitors, and a switching means, wherein a first group of voltage levels comprises two intermediate voltage levels that are low level with respect to the peak voltage level and a second group of voltage levels comprises the remaining two intermediate voltage levels, wherein:

said amplifier and one of said capacitors generate a first voltage level included in the first group of voltage levels, and

said switching means, controlled at a predetermined timing, switches said one of said capacitors to generate a voltage level included in the second group of voltage levels using a discharge voltage of said capacitor and the peak voltage level, and said switching means, controlled at a predetermined timing, series-connects the remaining capacitors to generate the other voltage level included in the second group of voltage levels using discharge voltages of each of said remaining capacitors and the peak voltage level.

7. (previously presented): A power supply circuit as claimed in Claim 1, further comprising a segment electrode and a capacitor that stabilizes the voltage levels comprising the second group of voltage levels to be supplied to the segment electrode.

8. (previously presented): A power supply circuit for driving liquid crystal display as claimed in Claim 1, wherein said at least one capacitor stabilizes the voltage levels for the second group of voltage levels.

9. (previously presented): A power supply circuit as claimed in Claim 1, wherein the timing is in synchronism with a display signal for a liquid crystal display and selection of said at least one capacitor by said switch circuit is timed so as to not affect the liquid crystal display.

10. (previously presented): A power supply circuit as claimed in Claim 9, wherein the display signal comprises either one of a frame signal, a data output signal, and a signal generated on the basis of the data output signal.

11. (previously presented): A power supply circuit as claimed in Claim 10, further comprising a common electrode and a segment electrode, wherein the connection of said at least one capacitor to the common electrode is controlled by a signal which is in synchronism with the frame signal and wherein the connection of said at least one capacitor to the segment electrode is controlled by a signal which is in synchronism with the data output signal.

12. (previously presented): A power supply circuit for driving liquid crystal display as claimed in Claim 1, wherein said predetermined timing connects said at least one capacitor to generate a voltage level only during a certain switching period and the predetermined timing connects said at least one capacitor to a predetermined level to charge said capacitor outside of said switching period.

13. (previously presented): A power supply circuit as claimed in Claim 1, wherein said amplifier and said capacitors have a low withstanding voltage.

14. (original): A power supply circuit that generates four intermediate voltage levels with respect to a peak voltage level, said power supply circuit comprising one amplifier having a voltage follower configuration, three capacitors, and a switching means, wherein a first group of voltage levels comprises two intermediate voltage levels that are low level with respect to the peak voltage level and a second group of voltage levels comprises the remaining two intermediate voltage levels, wherein:

said amplifier and two of said capacitors generate the two voltage levels included in the first group of voltage levels, wherein an output voltage of said amplifier and a discharge voltage of one of said capacitors is used to generate a first output voltage level that is greater than the output voltage of said amplifier and said first output voltage charges an external capacitance; and

said switching means, controlled at a predetermined timing, switches one of said capacitors to generate a voltage level included in the second group of voltage levels using a discharge voltage of said capacitor and the peak voltage level, and said switching means, controlled at a predetermined timing, switches said external capacitance to charge another one of said capacitors for generating the other voltage level included in the second group of voltage levels.

15. (original): A power supply circuit as claimed in Claim 14, wherein said amplifier and said capacitors have a low withstanding voltage.

16. (currently amended): A power supply circuit for driving a display, comprising:

a first power source terminal;

a second power source terminal;

a plurality of resistors connected in series between said first and second power source terminals;

a first amplifier having its input coupled to a connecting point of adjacent resistors among said resistors~~said first and second power source terminals~~ and its output coupled to a first intermediate voltage output terminal outputting a first intermediate voltage level;

a first capacitor having a first electrode and a second electrode;

a first switch electrically connecting said first electrode with ~~one of~~ said output of said first amplifier in a first mode and connecting said first electrode with and said first power source terminal in a second mode; and

a second switch electrically connecting said second electrode with one of said second power source terminal in said first mode and connecting said first electrode with ~~and~~ a second intermediate voltage output terminal outputting a second intermediate voltage level in said second mode.